

COMPUTER SERVICE TECHNICIAN

A student who has completed Job Corps' Computer Service Technician program is trained and ready to work in this field. To complete a trade, the student must learn the academic and vocational skills required for graduation. Job Corps students also learn good work and personal habits, preparing them for life after Job Corps. To complete the Computer Service Technician program, a student must master skills in the following categories:

TOOLS AND TEST EQUIPMENT

Understand the names/uses of tools and test equipment used for troubleshooting and servicing personal computers.

PERSONAL COMPUTER COMPONENTS AND FUNCTIONS

Understand basic functions and components of a PC; understand central processing unit, random access memory, motherboard, expansion slot, power supply, floppy drive, hard drive, CD-ROM drive, connectors and ports, sound card, video adapter, monitor, network card, keyboard, mouse, modem, printer, joystick, jumpers and switch settings and manuals.

MICROPROCESSORS

Illustrate knowledge of microprocessors, CPU families and CPU component terminology.

POWER SUPPLIES

Understand the connection of the power supply to the motherboard; identify connectors, troubleshoot and replace power supplies and switches.

RANDOM ACCESS MEMORY (RAM)

Identify various types of RAM; install and test RAM.

MOTHERBOARDS AND BIOS

Identify motherboard form factors and its components; understand BIOS and CMOS functions, ROM, and the Power On Self Test process and how to choose and install a motherboard in a case.

FLOPPY DRIVES

Identify floppy drives and designations; correctly cable and make CMOS settings and test installed drives; troubleshoot floppy drives.

HARD DRIVES

Understand types, geometry and capacities of hard drives, hard drive terminology and conventions; understand how to get CMOS to recognize the hard drive, data transfer modes, how to diagnose and correct hard drive data problems and hard drive CMOS and hardware problems; understand RAID.

DISK OPERATING SYSTEM (DOS)

Understand operating systems, file extensions, DOS drives, directories, system files, user interface and prompt; understand DOS commands and file/directory navigation and how DOS communicates with hardware.

COMPUTER VIRUSES

Understand types of viruses, how to detect them and protect computers from them.

EXPANSION BUSSES

Understand expansion busses, I/O addresses, interrupts, I/O ports, Direct Memory Access, expansion cards and Plug-n-Play and how to install and configure peripheral devices.

WINDOWS

Understand current version of Windows, MSDOS.SYS and the Windows graphical user interface.

APPLICATION SOFTWARE

Understand and correct common software problems.

INTERNET

Set up Internet access; install, configure and use Internet browser; demonstrate basic e-mail functions.

CUSTOMER RELATIONS AND BUSINESS PRACTICES

Troubleshoot personal computer problems and communicate the process by which to correct the problem to customers; prepare a customer invoice itemizing costs for parts, labor and sales tax.

